

What is claimed is:

1. A light emitting diode driving circuit comprising:
  - a current limiting resistor adapted to be connected to at least one light emitting diode;
  - a field effect transistor (FET) comprising a source electrode, a gate electrode and a drain electrode, the drain electrode being connected to the current limiting resistor;
  - a feedback circuit comprising a variable reference voltage source for controlling current of the drain electrode of the FET.
2. The driving circuit as claimed in claim 1, wherein the source electrode of the FET is connected to an input voltage supply.
3. The driving circuit as claimed in claim 1, wherein the feedback circuit further comprises a first differential amplifier, a second differential amplifier and an integrating circuit.
4. The driving circuit as claimed in claim 3, wherein the first differential amplifier comprises an output terminal and two input terminals.
5. The driving circuit as claimed in claim 4, wherein the second differential amplifier comprises an output terminal and two input terminals.
6. The driving circuit as claimed in claim 4, wherein the input terminals of the first differential amplifier are connected to two terminals of the current limiting resistor, respectively.
7. The driving circuit as claimed in claim 5, wherein the output terminal of the first differential amplifier and the variable reference voltage source are

connected to the two input terminals of the second differential amplifier, respectively.

8. The driving circuit as claimed in claim 5, wherein the output terminal of the second differential amplifier is connected to the integrating circuit.
9. The driving circuit as claimed in claim 3, wherein the integrating circuit comprises an output terminal, which is connected to the gate electrode of the FET.
10. A light emitting source driving circuit comprising:
  - a field effect transistor (FET) comprising a source electrode connected to a power supply, a gate electrode connected to a feedback circuit, and a drain electrode connected to a current limiting resistor to which a light source is connected sequentially; wherein

the feedback circuit comprises a variable reference voltage source which is proportional to a current passing the resistor and entering the light source.
11. The circuit as claimed in claim 10, wherein said feedback circuit includes a first differential amplifier with two terminals of which one is connected between one end of the resistor and the drain electrode, and the other is connected between the other end of the resistor and the light source.
12. The circuit as claimed in claim 11, wherein said feedback circuit further includes a second differential amplifier connected to said first differential amplifier with said variable reference voltage source thereof.
13. The circuit as claimed in claim 12, wherein said feedback circuit further includes an integrating circuit connected between the second differential amplifier and said gate electrode.